# **WICKED6** CYBER BATTLE

## Tournament Kick-Off







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# Kick Off Agenda

- Wicked6 Overview
- Wicked6 Cyber Battle Overview
  - Practice Sessions
  - ° Scrimmage
  - ° Game Day
- GLITCH Cyber Range
- Tournament Rules
- Q&A



# Wicked6 Hack and Chat

Expanded to a 3-day event! New game platforms



- Access to Wicked6 talks and general gameplay is included
- Online on Brella virtual event platform & Discord
- Technical speaker slots available for recorded sessions. Foreign language presos accepted
- Walkthrough <u>contest</u> must be releasable & solved in past 3 months





# Wicked6 Cyber Battle Tournament

Global All-Women Team Tournament

• Hosted on **GLITCH** CYBER RANGE

- Attack & Defense
  - Team size up to 8
  - Players can come and go
- Live Streaming



Feb 28 - Mar 2 Practice #1 Optional. 3pm ET Friday - 3pm ET Sunday



Mar 14 - Scrimmage

Optional. **3pm-11pm ET** during Practice #2



Mar 14 - Mar 16 *Practice #2* 

Optional. 3pm ET Friday - 3pm ET Sunday



March 30 - Cyber Battle

LIVE COMPETITION 8am ET - 5pm ET







# Streaming the Competition



#### March 30 - Cyber Battle

LIVE COMPETITION 8am ET - 5pm ET

#### **TENTATIVE** STREAM SCHEDULE

3pm - RECAP PLAY HIGHLIGHTS & SHOW WALKTHRUS 4pm - LIVE SHOUTCAST

5pm - END BATTLE

- FINAL ANALYSIS & HIGHLIGHTS
- Announce GENERAL PRIZE WINNERS
- Announce TOURNAMENT WINNERS

6pm - END STREAM



#### Our 2025 Livestream Shoutcasters





# Gamer Roles & Expectations



- + You will abide by the honor code and platform rules.
- + You will share screens live on stream.
- + No other access to Discord channels outside of game channel provided.
- + Video on during live finale is optional. But you will need to share it at least once.





# Honor Code

All participants are expected to embody a spirit of mutually beneficial competition and operate in accordance with the honor system. This means that all participants will act honorably, following all rules set forth herein, and compete with exceptional sports(wo)manship.

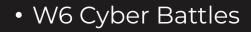
- Do not watch the live stream while you're competing.
- By participating you are consenting to your actions being monitored/ recorded.
- Denial-of-service and brute force attacks are off-limits, and additional compute power will not give you an advantage/ get around your designated bandwidth limits.
- None of the challenges are designed such that a brute force attack will solve them.
- Report vulnerabilities found within the platform; especially those that lead to an unfair advantage. Competitors that report such vulnerabilities may be rewarded with a small point value -- TBD at the time of disclosure, at the discretion of the platform team.







# Using Discord



- Private team channels.
  - ° Chat & voice
  - Captains can create threads within the channel
- English required during game
- Translation bot will be available (this is our first use of this app)







# **GLITCH INTRO**









# HITCHHIKER'S GUIDE TO ATTACK/DEFENSE

Wicked6 - Tournament Overview February 27



### What to pay attention to

- whoami
- Attack/Defense
  - The why
  - The what
  - $\circ$  The how
- Glitch Range
  - How to connect
  - How to play
  - How to win
- Connection Walkthrough

### B00TK1D@GL1TCH:~# whoami



- Josiah Stearns
- CTFing since 2019 with Delogrand + US Cyber Team
- Starting building Glitch Range in 2023

### **Attack/Defense: The why**



#### • CTFs are:

- Static
- Offense-only
- Self-paced
- Incredibly fun

#### • Attack/Defense is:

- Dynamic
- Offense and defense
- A race
- Incredibly fun

### **Attack/Defense:** The what



- Services the challenge (4-8 services per game)
  - Every team given identical set of services
  - Source-code based vulnerabilities (occasionally binaries)
  - Provides ability to log in, store information, retrieve information
- Vulnbox hosts each team's services
  - Every team granted root access on their own vulnbox
  - $\circ$  Full access to modify source code, add network blocks, administer system
- Game server the scorekeeper
  - Routes traffic through Source NAT
  - Checks service uptime and plants flags

### **Attack/Defense: The how**



- Tick: full cycle of A/D actions
  - Usually set as 60 180 seconds
- Flag: secret protected information
  - Common flag format: [A-Z0-9]{31}=
  - Expire after some amount of ticks (usually 5 ticks)
- Service Level Agreement (SLA) Checks:
  - PUT: Plants a new flag
  - GET: Retrieves recently planted (unexpired) flag
  - SLA: Verifies general functionality of the service
- Scoring
  - Offense: gain points by submitting other teams' flags
  - $\circ$   $\quad$  Defense: lose points when other teams submit your flags
  - SLA: gain points for ticks in which all checks pass

### Attack/Defense: The how





### **Glitch Range: How to connect**



- Preparation
  - Install Wireguard
- Minute zero
  - Join links distributed to each team
  - Format: <u>https://w6.glitch.ad/join/3a37ca8cefe9e5e499ff4424ff08d757</u>
  - Network is open from start

### **Glitch Range: How to play**



- Connect to VPN
  - Enter username
  - Download VPN config
- Log into vulnbox
  - ssh root@vulnbox.glitch.ad
- Start triaging service source code
  - Patch and redeploy services
  - Write and deploy exploits
- Monitor network traffic for inbound exploits
  - Add network block rules
  - Steal exploits off the wire

### **Glitch Range: How to play**



- Tick length: 120 seconds
- Flag format: [A-Z0-9]{31}=
- 3-6 services covering web, crypto, and pwn
- Scoring formula:
  - o service\_score = sla\_score + offense\_score defense\_score
    - sla\_score = sqrt(total\_teams) / sqrt(teams\_passing\_sla)
    - offense\_score = sum(captured\_flag\_values)
    - defense\_score = -sum(lost\_flag\_values)
  - **flag\_value** = 1 / sqrt(teams\_stealing\_flag)
- Game day: March 30, 2025
  - Setup (self-organize/prepare): 8:00 am EDT
  - Range open: 9:00 am EDT
  - Range close: 5:00 pm EDT

### **Glitch Range: How to win**



- Triage quickly
- Focus on service-level vulnerabilities
- Watch network traffic closely
- Minimize exploit fingerprints
- Communicate



## Walkthrough



# Questions?

# Questions?

- Are we required to attend practice sessions?
  NO. These are for you to become familiar with the platform and practice as a team. It is solely at your discretion
- Are we required to attend **scrimmage**?

NO. This time is for you to engage in live play and is optional.

- Are we required to be logged on at 8am ET on March 30?
  YES. This is to ensure all teams can successfully access the platform and will be given a pre-competition briefing.
- Resources you recommend for a person or team new to this?
  Local version to practice: <u>https://github.com/Blackslashtech/glitch</u>







# **VICKED6** CYBER BATTLE

# Thank You!







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